

REQUEST FOR APPROVAL

To: Scott Smithline
Director

From: Howard Levenson
Deputy Director, Materials Management and Local Assistance Division

Request Date: September 16, 2016

Decision Subject: Summary of Manufacturers Challenge and Potential Next Steps

Action By: September 20, 2016

Summary of Analysis and Request:

Packaging can provide many important benefits, from protecting the products we purchase, to providing information to the consumer, to extending the shelf life of food to prevent food waste. Rapid innovations for lighter-weight, more sophisticated packaging materials and designs to help realize benefits such as these and to reduce various lifecycle impacts have continued to occur. However, while laudable, these innovations have also outpaced the abilities of traditional local government and private sector programs to effectively collect and process these materials, contributing to the estimated 8 million tons of packaging landfilled in California annually – or about one quarter of the state’s total disposal stream.

Developing comprehensive recovery strategies for packaging is complex due to the vast number of packaging products, materials, competing lifecycle impacts to prioritize and address, existing legislative requirements, and stakeholders involved in the design, manufacture, distribution, and end-of-use management.

CalRecycle’s January 2016 Manufacturers Challenge culminated from an extensive, three-year public engagement process to address the 8 million tons of packaging in California’s disposal stream as one of several key strategies to reach the state’s broader goal of 75 percent recycling by the year 2020. In response to comments received at earlier workshops from product manufacturers, brand owners, and trade groups (hereafter broadly referred to as “industry”) for CalRecycle to focus on voluntary approaches rather than mandatory ones, the department decided to offer the Manufacturers Challenge – a call for product manufacturers and brand owners to publicly indicate how they could voluntarily reduce the amount of packaging going to landfill by 50 percent by 2020 (CalRecycle chose the 50 percent goal to signify that it is looking for significant efforts to divert substantial amounts of packaging from the landfill waste stream). CalRecycle asked industry, via trade groups/associations and private sector groups, to agree to commit to the Manufacturers Challenge and participate in a public workshop to share ideas that could be explored to meet the voluntary goal. CalRecycle asked participants to focus on comprehensive, collective, statewide industry-led activities that could drive meaningful impacts. Specifically, CalRecycle asked that industry address the following key components:

1. Specific activities each group would commit to in order to work toward the goal;

2. How the goal would be measured, including what baseline they propose to use along with specific metrics;
3. Timelines for achieving the goal; and
4. How each group would finance its proposed activities.

While CalRecycle received good industry participation at the January 5, 2016, Manufacturers Challenge workshop, overall the material presented did not address the above key components in a comprehensive, meaningful way. The overwhelming majority of material presented was a summary of current, national activities rather than proposing new, California-specific activities, how they would be implemented, and how they would achieve the 50 percent goal. No suggestions were proposed: 1) for specific activities to get to a 50 percent reduction goal, with one exception described below; 2) on performance metrics or baseline for proposed activities; 3) on timelines for proposed activities, other than to state the voluntary goal's timeline of the year 2020 was not possible; and 4) on proposed funding other than to continue relying on local and state funding, again with one exception.

Consequently, staff recommends that the Director approve pursuing the following two options to reduce packaging disposed in California:

1. Develop a packaging policy model containing components necessary for a mandatory comprehensive, state-wide packaging program in California, including, but not limited to: definitions, scope, goals, metrics, stakeholder roles and responsibilities, program financing, and oversight. Staff would conduct a public consultation process to gather input and feedback during development of the model, and consider exclusions for packaging products for which an adequate voluntary program designed to achieve the 50% goal can be developed (see Option 2). This option would include outreach and education to explore impacts to stakeholder groups such as local governments, haulers, and recyclers under a mandatory program. Anticipated timeline: September 2016-December 2017.
2. Explore the following complementary, individual voluntary activities presented at the January 2016 Manufacturers Challenge workshop to determine potential to significantly decrease packaging disposal in California:
 - a. Participate in discussions with the American Chemistry Council and GreenBlue's Sustainable Packaging Coalition on plastic film recycling, if a comprehensive agreement designed to address the 50% goal for this material can be agreed upon. Anticipated timeline: September 2016-December 2017.
 - b. Participate in discussions with the Closed Loop Fund on potential financing strategies as suggested at the January 5, 2016 Manufacturers Challenge workshop. Anticipated timeline: September 2016-December 2017.
 - c. Keep apprised of potential activities based on AMERIPEN's statement that it intends to convene a working group to explore policies and programs that would support the packaging/food waste nexus and would like to engage CalRecycle. Timeline to be determined.

Staff is not recommending approval of a third option:

3. Continue the Manufacturers Challenge as a voluntary effort to develop a comprehensive packaging reduction and recovery strategy. CalRecycle would conduct activities such as convening small work groups to address key needs of this effort, including, but not limited to, those identified at CalRecycle's January 5, 2016, Manufacturers Challenge workshop, such as appropriate baseline, metrics, and milestones. This could include development of content-specific workgroups and/or separate workshops/workgroup meetings for in-depth discussions and decision-making. Anticipated timeline: September 2016-December 2017.

Recommendation:

Staff recommends Director approval of Options 1 and 2, above, of staff beginning associated activities as described in more detail below.

Action:

On the basis of the information, analysis, and findings in this Request for Approval, I hereby approve staff's recommendation and direct staff to develop a mandatory packaging policy model while simultaneously exploring specific voluntary initiatives, as described in Options 1 and 2.

Dated:9/21/16

Scott Smithline, Director**Attachments:**

1. Summary of CalRecycle's Packaging Public Workshops and Key Outcomes
2. CalRecycle Packaging Workshop Background Paper: Increasing collection and recovery of packaging in California, November 13, 2014.
3. CalRecycle Staff Notes, January 5, 2016 Manufacturers Challenge Workshop
4. Summary of Industry Responses to CalRecycle's Manufacturers Challenge, as presented at the January 5, 2016 Public Workshop
5. Summary of Written Comments Regarding the Manufacturers Challenge

Background information:CalRecycle's 75 Percent-Related Packaging Efforts

CalRecycle acknowledges the many voluntary efforts – both on the part of individual companies as well as companies working together on public-private partnerships – to optimize packaging for its many benefits, reduce negative impacts, and increase recycling. Despite these laudable efforts, though, a two-fold dilemma remains:

- 1) Packaging comprises about one-quarter of the total disposal stream in California, based on the most recent 2014 CalRecycle waste characterization data; the proportion of packaging disposed remains unchanged from the previous 2008 waste characterization data; and
- 2) Not only has the end-of-use phase not yet been adequately addressed, but the end-of-use materials stream is increasingly comprised of more unrecyclable and difficult-to-manage packaging.

To address this, in 2013, CalRecycle initiated an extensive, transparent public engagement process to address the estimated 8 million tons of packaging in the disposal stream. This was one of several key strategies to reach the state's broader, legislatively-mandated statewide goal of 75 percent recycling by the year 2020 per Assembly Bill (AB) 341 that were identified in CalRecycle's 75 percent Report to the Legislature. Recognizing the complexity of attempting to improve packaging end-of-use management, the department conducted a deliberative process to better understand the multitude of stakeholder concerns and perspectives.

As a first step, staff met informally with several individual companies conducting progressive efforts to measure and reduce the impacts of their packaging. The focus was to learn more about their activities to date, drivers for packaging decision-making, and challenges they experienced along the way. The companies provided staff with numerous examples of significant efforts to source reduce and optimize packaging and product/package systems. Themes that emerged included: strategies must not prevent or inhibit package innovation; any regulatory approach should give credit for achievements to date (e.g., source reduction); minimum content requirements are problematic and not desirable; and, in some cases, optimal packaging is not always accepted by the consumer.

The department then conducted four public workshops with a diverse set of stakeholders to solicit feedback and identify challenges and opportunities to increase packaging recovery. Product and packaging stakeholders -- including recyclers, packaging manufacturers, local governments, consumer product and packaged goods companies, materials management facility operators, haulers, composters, environmental advocacy organizations, and retailers -- were invited to present and participate in these discussions. The two most recent workshops are described below; see Attachment 1 for a complete description of the workshops and a high-level summary of the comments received.

November 13, 2014 Packaging Workshop

The purpose of the November 13, 2014 Packaging Workshop was to solicit stakeholder feedback on potential packaging end-of-use policy approaches. Staff prepared a background paper to help guide the discussion, which provided analysis of packaging in California's disposal stream and at the national level; a scope and definition of packaging for context during discussions; an analysis of what packaging products should, at a minimum, be included in an approach moving forward; and looked at a variety of voluntary and mandatory approaches and the pros and cons associated with each (see Attachment 2).

Consistent with the 75 percent report to the Legislature, CalRecycle suggested that a mandatory approach of some kind, in addition to the other activities that CalRecycle is undertaking, would be necessary to help California meet its overall statewide 75 percent recycling goal. As previously stated, voluntary efforts have not done enough in California to curb the millions of

tons of packaging going to landfill. Moreover, the burden continues to rest on local governments to finance materials management solutions. Mandatory approaches presented by CalRecycle at the workshop included, but were not limited to, Extended Producer Responsibility (EPR), landfill bans on recyclables, and minimum content requirements.

Stakeholder feedback included various pros and cons regarding some of the examples of voluntary and mandatory policies discussed in the background paper; suggestions of alternative policy ideas proposed including adding a “materials management fee” on every product sold in California to fund increased recovery such as development or enhancement of infrastructure and of education and outreach programs. The main theme CalRecycle heard from industry was that CalRecycle should focus on partnerships and voluntary efforts instead of mandatory ones.

January 5, 2016 Manufacturers Challenge

Following the November 13, 2014 Packaging Workshop, CalRecycle decided to offer the Manufacturers Challenge – an opportunity, in response to stakeholder feedback at the November workshop, for product manufacturers and brand owners (collectively referred to as “industry”) to demonstrate how they could reduce the amount of packaging going to landfills in California by 50 percent by the year 2020. CalRecycle chose the 50 percent goal to signify that it is looking for significant efforts to divert substantial amounts of packaging from the landfill waste stream. The Challenge was intentionally designed as an opportunity for industry groups to show how a voluntary approach would work in meeting this goal.

CalRecycle invited industry to accept the Manufacturers Challenge and present its proposed voluntary activities within the context of an overall comprehensive, collective effort at a CalRecycle public workshop. Emphasis was placed on the need for a sufficiently collective, comprehensive response from industry to meet or make significant progress toward this voluntary goal. As opposed to inviting individual companies to participate, CalRecycle engaged industry via trade groups and associations and two significant private sector initiatives, the Recycling Partnership and the Closed Loop Fund, in an effort to reach as many product manufacturers and brand owners as efficiently as possible. Staff recognize there are limitations with working through trade associations since the associations do not control individual member actions, budgets, policy, etc. However, this approach was also pursued because of the lack of a single entity with which to engage the breadth of product manufacturers and brand owners required to coordinate comprehensively at a statewide level.

Invitation letters were sent to those organizations with which the department regularly engages as well as those groups that staff determined represented a thorough cross-section of product manufacturers and brand owners. The invitation to join the Manufacturers Challenge, however, was open to all trade and industry associations. Staff met individually with all the organizations invited to further explain the intent of the Challenge, expectations for the organizations, and answer any questions.

On January 5, 2016, representatives from 12 trade associations and private sector initiatives presented at a day-long workshop, and both attendees and presenters participated in question and answer discussions throughout the day. The representatives were asked to specifically address the following key components:

- 1) Specific activities each group would commit to in order to work toward the goal;
- 2) How the goal would be measured, including what baseline they propose to use along with specific metrics;
- 3) Timelines for achieving the goal; and
- 4) How each group would finance its proposed activities.

During the course of meeting with the various organizations and trade groups prior to the workshop, staff emphasized its interest in obtaining each organization's perspective on what comprehensive set of activities need to occur in order to achieve the goal, and how each group would propose doing its part. At the same time, staff also indicated the department's interest in hearing any feedback on the Challenge – e.g., whether the goal and/or timeframe is too ambitious and whether the group proposed an alternate goal(s) and/or timeline(s).

Staff Evaluation of Industry Response to the Manufacturers Challenge

The following describes the process staff utilized to evaluate industry's response to the Manufacturers Challenge:

- Prepared and posted online detailed notes from the January 5, 2016 workshop. Provided attendees with the opportunity to request corrections to the notes prior to finalizing.
- Solicited and posted online additional public comments on the Manufacturers Challenge following the workshop and received four responses (see Attachment 5).
- Assessed the extent to which industry's response to the Manufacturers Challenge was addressed adequately as compared to the four key points above (see Attachment 4). Public input was also considered, provided both at the workshop as well as in follow-up written comments submitted to the department (summarized below and in Attachment 5).

Summary of Industry Responses to the Manufacturers Challenge

Overall, with only one or two potential exceptions that encompass Option 2, participants did not bring forth new ideas and proposals for industry-led, collective, comprehensive, statewide efforts to meet the voluntary 50 percent goal. Instead, the overwhelming majority of material presented was a summary of current, national activities rather than proposals for new, California-specific activities, how they would be implemented, and how they would achieve the 50 percent goal. The main points from each presentation, along with assessment of whether each organization adequately responded to the Manufacturers Challenge's main components can be found in Attachment 4. Major themes presented by participants included:

- Trade associations cannot require member companies to conduct activities; individual companies are going to have to tackle this problem
- A lot has already been done in this space, particularly with regard to source reduction
- Partnerships are essential
- Energy recovery must be a part of the solution (for the voluntary Manufacturers Challenge goal as well as for the overall statewide goal of 75 percent recycling by 2020, per AB 341)
- General support for voluntary efforts, development of best practices, pay-as-you-throw policies, harmonized consumer messaging/communication
- General lack of support for mandatory efforts; specifically, EPR, mandating recycled content, product bans
- There is an opportunity for packaging to reduce food waste

- The voluntary goal of a 50 percent reduction of packaging going to landfill by 2020 is not possible in this timeframe

The role of energy recovery was an area of particular emphasis throughout the day's discussions. While the role of CalRecycle staff at this workshop was primarily to listen and receive comments, staff reiterated that the AB 341 framework focuses on source reduction, recycling, and composting, and not energy recovery from processes such as pyrolysis.

In addition, several of the representatives focused instead on advising CalRecycle what it should do to meet this goal:

AMERIPEN suggested that CalRecycle should: approach the Legislature with an energy recovery bill that complements other approaches; develop working group; adopt a Sustainable Materials Management framework; support How2Recycle label; collaborate with and engage in voluntary industry efforts; explore additional metrics; change the framework on how California addresses packaging (e.g., Upcycling, gasification, pyrolysis); allow more time to show impacts of existing efforts; and allow voluntary efforts in the meantime.

AMERIPEN also indicated it intends to convene a working group to explore policies and programs that would support the packaging/food waste nexus and would like to engage CalRecycle. No further details were provided at or since the workshop. Staff suggests monitoring the status of such a working group, and should this materialize, assess potential participation at that time.

The Carton Council suggested that CalRecycle should: leverage AB 901 (Chapter 746, Statutes of 2015) to track progress program by program; increase disposal fee to \$4/ton; and consider a generator fee. Additionally, the Carton Council discussion about metrics and goals seemed to be more general guidance rather than tied to California-specific activities.

The Glass Packaging Institute suggested that CalRecycle's overall 75 percent goal could easily be met with continued focus on construction and demolition and organic materials.

The Grocery Manufacturers Association offered guidance on "what California needs" in terms of general program components rather than specific activities it could conduct as part of the Manufacturers Challenge.

The American Chemistry Council (ACC) suggested that CalRecycle partner with it, as well as the Sustainable Packaging Coalition (SPC), on its national Wrap Recycling Action Program (W.R.A.P.) Program to address one portion of the packaging waste stream – specifically to increase plastic film recycling in California. No further details were provided at the workshop, however, ACC and SPC representatives subsequently met with CalRecycle staff to provide more information. The ACC and SPC general concept is to facilitate local government support for return-to-retail programs; encourage municipalities to become W.R.A.P. Champions and share information with residents and businesses about the programs; encourage companies to use the SPC How2Recycle "Store Drop Off" recycling label; and support commercial film recycling, possibly with a pilot project. This appears to be a worthy endeavor to explore, however, more

discussion is needed to determine how these efforts would meet the 50 percent goal and to more clearly identify how the key questions will be addressed. This effort is included as one of the two voluntary initiatives staff recommends pursuing, in Option 2 above.

The Closed Loop Fund suggested that there may be innovative funding opportunities such as using green bonds to finance infrastructure projects around the state and would like to meet with staff to discuss further. Similar to the ACC and SPC proposal, more discussion is needed to determine how this might work and whether or not it would meet CalRecycle's key questions. This effort also is included as one of the two voluntary initiatives staff recommends pursuing, in Option 2 above.

Summary of Written Stakeholder Comments to the Manufacturers Challenge

CalRecycle received written comments from the following organizations, As You Sow, and UPSTREAM following the January 5, 2016 workshop (see Attachment 5).

The American Chemistry Council reiterated its statement that CalRecycle should focus on a sustainable materials management approach, "...as part of California's 75 Percent Recycling Initiative;" consider using Oregon's approach to plastics recycling assessment; and increase the tipping fee to fund additional CalRecycle activities related to this effort.

The American Cleaning Association provided guidance to CalRecycle such as recycling costs should be minimized; and source reduction and innovation should be prioritized and promoted. It also indicated its assessment that the current system of shared responsibility for end-of-life product/package management is cost effective and works for consumers and the cleaning products industry.

As You Sow indicated it provided its comments to CalRecycle through an Opinion piece published in Resource Recycling on February 10, 2016. Among the comments, As You Sow stated that the consumer goods and packaging sector missed a golden opportunity at the January workshop because most groups rehashed existing programs and did not propose new commitments specific to the goal. It also noted that because trade associations are not typically empowered to show dramatic leadership on new policies, a common platform is needed for industry groups to work together.

UPSTREAM indicated that the trade association representatives did not address the voluntary 50 percent goal, instead highlighting national efforts and the need for CalRecycle to tackle organics and other efforts rather than packaging; that brand owners and trade associations want to continue to have the public subsidize their businesses through public expenditures; and that brand owners and manufacturers, if responsible for end-of-life management, will be able to optimize packaging design to meet infrastructure capabilities, or, in the alternative, invest in infrastructure such that it meets the need of packaging design.

Overall Findings:

Staff concludes that overall the industry groups did not adequately respond to the Manufacturers Challenge; specifically, to the four key components CalRecycle requested regarding: 1) specific activities; 2) goal measurement; 3) timelines; and 4) financing (see Attachment 4). Very little of what was presented addressed the key questions in a meaningful way. The primary responses highlighted the many industry efforts to date and general suggestions highlighted the need for

increased consumer/resident education and outreach, simplified and harmonized consumer messaging, and support for partnerships and collaboration. There were little to no suggestions on specific activities needed to get to the 50 percent goal or on performance metrics specific to proposed activities, with one exception; and little on how to fund necessary activities other than to continue relying on local and State government, again with one exception. As a result, staff concludes that efforts to address the 8 million tons of packing still being disposed in landfills must begin with consideration of mandatory approaches.

Options for consideration:

1. Develop a packaging policy model containing components necessary for a mandatory comprehensive, state-wide packaging program in California. This would be developed through public workshops and ultimately be presented to CalRecycle's Director for adoption as a CalRecycle policy objective. This option would include outreach and education to explore impacts to stakeholder groups such as local governments, haulers, and recyclers under a mandatory program. Staff recommends this approach because of the overall findings described above (i.e., that the voluntary efforts proposed are insufficient) and because CalRecycle does not have statutory authority at this time to implement such a model.

The packaging policy model would serve as a tool for decision makers and others interested in exploring approaches for statewide policy relative to packaging. This approach is similar to how CalRecycle developed and made available on its website a similar policy model for implementing extended producer responsibility programs, including the components the department considers necessary for implementing such programs; this model has been effective in providing information to stakeholders and decision makers. Components to discuss would include, but not be limited to: definitions, scope, goals, metrics, stakeholder roles and responsibilities, program financing, oversight, and suggested implementation strategies, such as phasing strategies in over time (e.g., focusing first on capturing core, highly-recyclable packaging materials, then moving to systems to capture harder-to-recycle ones). At the same time, it is possible that subsets of the industry could develop voluntary approaches that CalRecycle considers adequate, so this model could also explore potential exclusions for those packaging products for which an adequate voluntary program designed to achieve the 50 percent goal can be developed (see Option 2).

Staff would conduct an extensive public consultation process to gather feedback during development of the model, which may include development of content-specific workgroups and/or separate workshops/workgroup meetings for in-depth discussions. Staff also would coordinate with the Air Resources Board (ARB) to assess potential opportunities to collaborate this effort with the ARB's Sustainable Freight Action Plan activities. A draft packaging policy model would be prepared by staff as a starting point from which to gather stakeholder expertise and feedback.

Examples of policies and considerations to explore during the public consultation process include, but are not limited to, those presented at the November 2014 workshop:

a. Extended Producer Responsibility (EPR)

EPR is an approach widely employed throughout the world to increase packaging recycling and recovery. According to Environmental Packaging International, more than 50 countries worldwide utilize packaging EPR programs, and according to the Product Stewardship Institute, the United States is one of the only Organisation for Economic Cooperation and Development member countries that does not utilize EPR for packaging. Many of the companies participating in EPR programs elsewhere in the world also sell packaging into California.

An EPR approach could require producers, as defined (e.g., manufacturers, brand owners, first sellers in to the state) to design, finance, and implement a statewide program to collect and properly manage packaging sold into the state.

Considerations for discussion include, but are not limited to:

- Adequate and appropriate consultation with local jurisdictions regarding how their operations, facilities, and program financing might be impacted by the program and ways to mitigate negative impacts;
- Defining goals and associated key metrics to track program performance;
- Defining producers and any other potential regulated entity to ensure a level playing field while minimizing CalRecycle resources necessary to oversee and enforce the program;
- Whether packaging types should be phased in over time and built upon as program matures (e.g., begin with the largest material types or those currently most cost effective to collect and/or for which end markets currently exist);
- How to acknowledge already significant efforts employed by producers to source-reduce and design for recyclability, etc.;
- How to design the program to encourage source reduction and front-end design consideration to minimize negative impacts on collection and recovery operations;
- What level of competition is desirable; and
- Appropriate level of harmonization with other California packaging-related programs (e.g., Beverage Container Recycling Program, Rigid Plastic Packaging Container Program) and existing packaging EPR programs in other countries.

b. Landfill bans on recyclables

This approach could prohibit recyclable packaging materials, as defined (e.g., cardboard, newspaper, glass containers, plastic containers, etc.), from being accepted at and landfilled in California. This approach could include varying levels of enforcement at the state and/or local level.

Considerations for discussion include, but are not limited to:

- List of recyclables covered under ban;
- Whether the ban is at local or state level;
- Enforcement approach (active vs reactive); and
- Potential impacts if implemented as a stand-alone measure (e.g., “ban without a plan”)

c. Minimum recycled content

This approach could require a specified package or packaging category sold into the state to contain a minimum amount of post-consumer material. Alternative approaches could be explored, such as requiring a minimum amount of post-consumer material in another part of the product cycle instead of in the packaging directly.

Considerations for discussion include, but are not limited to:

- Determination of appropriate product/product category;
- Appropriate level of post-consumer content and where it is applied;
- Appropriate level of harmonization with existing minimum-content programs (e.g., glass containers, RPPCs, plastic bags);
- How best for regulated community to adequately and efficiently demonstrate compliance; and
- How to encourage post-consumer material use while being the least disruptive to package and product innovation

Consideration may also be given to recommendations presented in a recent report to CalRecycle, “Greening Packaging Material Supply Chains for California: Film Plastic and Uncoated Corrugated Cardboard”¹ as they may apply to comprehensive statewide solutions (e.g., setting ambitious goals and standards, with associated implementation schedules). Option 1 anticipated timeline: September 2016-December 2017.

2. Explore possible complementary, individual voluntary activities presented at the January 2016 Manufacturers Challenge workshop:
 - a. Participate in discussions with the American Chemistry Council (ACC) and GreenBlue’s Sustainable Packaging Coalition (SPC) on flexible film recycling, if a comprehensive approach designed to address the 50% goal for this material can be agreed upon. ACC suggested that CalRecycle should partner with ACC and SPC on their Wrap Recycling Action Program (W.R.A.P.) to collect and recover film plastic. While this could be a positive endeavor, the proposal presented at the workshop did not address CalRecycle’s key Manufacturers Challenge questions 2, 3, or 4 regarding baseline and measurement, timelines, and financing, respectively. Staff met with ACC and SPC representatives following the workshop to discuss this further and obtained additional information on the W.R.A.P. program and what a partnership might entail. With direction from the Director, CalRecycle would further explore this proposal to understand how ACC and SPC propose to meet the 50 percent goal by 2020 for this packaging category and address the other key questions of the Manufacturers Challenge. Anticipated timeline: September 2016-December 2016 to determine CalRecycle participation in the W.R.A.P. program. If CalRecycle moves forward, a subsequent timeline

¹ Greening Packaging Material Supply Chains for California: Film Plastic and Uncoated Corrugated Cardboard, prepared by Esteban A. Guerrero, Updated September 7, 2016. Accessed at: <https://publicpolicy.stanford.edu/publications/greening-packaging-material-supply-chains-california-film-plastic-and-uncoated>.

for activities would be developed. Anticipated timeline: September 2016-December 2017.

- b. Participate in discussions with the Closed Loop Fund (CLF) on potential financing strategies as suggested at the January 5, 2016 Manufacturers Challenge workshop. The topic of green bonds, which are already used in California and elsewhere for a variety of purposes, was suggested by a CLF representative. CalRecycle would explore this with CLF to understand more about this or other potential financing proposals, and if so, then would determine if such a proposal(s) would address the Manufacturers Challenge key questions. Anticipated timeline: September 2016-December 2017.
 - c. Keep apprised of potential activities based on AMERIPEN's statement that it intends to convene a working group to explore policies and programs that would support the packaging/food waste nexus and would like to engage CalRecycle. Timeline to be determined.
3. Continue the Manufacturers Challenge as a voluntary effort to develop a comprehensive voluntary packaging reduction and recovery strategy. CalRecycle would conduct activities such as convening small work groups to address key needs of this effort, including, but not limited to, those identified at CalRecycle's January 5, 2016 Manufacturers Challenge workshop, such as appropriate baseline, metrics, and milestones. This may include development of content-specific workgroups and/or separate workshops/workgroup meetings for in-depth discussions and decision-making. Anticipated timeline: September 2016-December 2017.